

# Black-tailed Jackrabbit

*Lepus californicus*

## Guidelines for Landowners Using Conservation Practices

Missouri Department of  
Conservation

Common name ▪ Black-tailed Jackrabbit  
Scientific name ▪ *Lepus californicus*  
State status ▪ Endangered  
Federal status ▪ None

### Ecology

Black-tailed jackrabbits historically resided in the west central and southwest prairies of Missouri. They occupy pastures, hay fields and cultivated areas, especially before crops grow more than 2 feet tall. They prefer grazed areas with scattered clumps of tall vegetation. Jackrabbits breed year-round, although most breeding occurs from late winter to mid-summer. Gestation lasts 41 to 47 days, at which time 2 to 4 young are born. Females may have as many as four litters per year, and offspring become independent when they are 3 to 4 weeks old. Jackrabbits are herbivores that prefer herbaceous plants and grasses, as well as cultivated crops such as cabbage, alfalfa, clover, and soybeans in the spring and summer months. Their fall and winter diet consist of dried grasses, buds, twigs, roots, bark, and fruits.

### Reasons for Decline

It is likely that black-tailed jackrabbits are suffering from the loss of native tallgrass prairies in Missouri. The trend toward extensive cultivation has caused a decrease in black-tailed jackrabbit habitat that is reflected in their declining populations. Anecdotal information from southwest Missouri suggests this species may no longer reside in Missouri. In addition, humans have historically decimated their populations by poisoning, shooting, and trapping rabbits when they are observed near cropland.



Photo Credit: Missouri Department of Conservation

### Recommendations

Black-tailed jackrabbits need large expanses of grassland with open vistas. Replacing large canopy trees with shrubs and/or open grassland will increase jackrabbit habitat. Populations have recently been associated with cattle farms where the grass is grazed very short in the pasture while the tall grass in the fencerows provides microhabitat. Promote land management activities that restore or maintain native grassland or open land habitat for black-tailed jackrabbits.

Refer to Management Recommendations for Construction Projects Affecting Missouri Wetlands and Management Recommendations for Conserving Native Prairie in Missouri for additional guidelines.

Consider the balance between adverse and beneficial practices when determining the overall effect of a conservation practice.

### Beneficial Practices

- Implement a patch burn grazing system or prescribed grazing system on native prairie or other wildlife-friendly grasslands where this species occurs. For a prescribed grazing system to benefit this species, grasslands should be managed for greater plant diversity and heterogeneous stands of vegetation.

- Graze livestock in a manner that promotes jackrabbit habitat but does not degrade or destroy the plant community.
- Restore or maintain areas with a diverse mixture of native warm-season grasses and forbs or with a mix of wildlife-friendly cool-season grasses, such as redtop or timothy, mixed with legumes. Native prairie should be maintained or restored whenever possible.
- Controlling invasive plants in habitats where this species occurs.
- Burn fields if needed to control heavy litter accumulation or brush invasion on a three-five year interval rotation; burning should be done prior to March 15 or after July 15. Avoid impacting greater than 75% of the practice acres annually.
- Removal of trees from prairies, grasslands or croplands to restore open vistas.
- No-till farming methods and maintaining crop residue over winter may benefit the black-tailed jackrabbit.

#### **Adverse Practices**

- Establishing invasive vegetation, such as tall fescue, Bermuda grass or Caucasian bluestem on sites or nearby where it could spread into the native plant community, and thus degrade or destroy habitat for this species.
- Unmanaged application of pesticides, animal waste or fertilizers that destroy or degrade habitats that support populations of this species.
- Uncontrolled livestock access that destroys or degrades habitat structure.
- Destruction, degradation or fragmentation of prairies or open fields.
- Removal of shrub habitat from open grasslands.
- Planting trees which will block vistas.
- When prescribed burning, mowing, haying or other disturbances occur on grassland acres between May 1 and July 15 and more than 75% of the practice acres are disturbed.

#### **Information Contacts**

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#### **Legal**

The Missouri Department of Conservation prepared these guidelines for conservation practices with assistance from other state agencies, contractors, and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat.

Compliance with these management guidelines is not required by the Missouri wildlife and forestry law or by any regulation of the Missouri Conservation Commission. Other federal, state or local laws may affect construction practices.

“State Endangered Status” is determined by the Missouri Conservation Commission under constitutional authority, and specific requirements for impacts to such species are expressed in the Missouri Wildlife Code, rule 3 CSR 10-4.111.